

### Listing of the Claims

1. (currently amended) A method process for producing empty capsids of the infectious bursal disease virus (IBDV) [VLPs-pVP2\*], the method comprising: which comprises ———culturing a yeast comprising a containing the nucleotide sequence encoding for a pVP2\* protein of IBDV and expressing said pVP2\* protein of IBDV, and if desired recovering said VLPs pVP2\*, wherein said pVP2\* protein of IBDV is a protein the comprises an amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue “n” of the pVP2 protein of IBDV, wherein “n” is an integer comprised between 441 and 501.

2. (currently amended) A method process according to claim 1, comprising the steps of:

- a) culturing yeast cells transformed with an expression system comprising the nucleotide sequence encoding for a the pVP2\* protein of IBDV, under conditions allowing the expression of said pVP2\* protein[[s]] and their assembly for forming of pVP2\* protein into VLPs-pVP2\* of IBDV; and
- b) if desired, isolating and optionally purifying said VLPs pVP2\* of IBDV.

3. (currently amended) A method process according to any of claim[[s]] 1 or 2, wherein said pVP2\* protein of IBDV is selected from the group consisting of formed by:

- (i) the pVP2 protein-441, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 441 of the pVP2 protein of IBDV;
- (ii) the pVP2 protein-452, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 452 of the pVP2 protein of IBDV;
- (iii) the pVP2-456 protein, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 456 of the pVP2 protein of IBDV;
- (iv) the pVP2 protein-466, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 466 of the pVP2 protein of IBDV;
- (v) the pVP2 protein-476, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 476 of the pVP2 protein of IBDV;
- (vi) the pVP2 protein-487, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 487 of the pVP2 protein of IBDV;
- (vii) the pVP2 protein-494, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 494 of the pVP2 protein of IBDV; and
- (viii) the pVP2 protein-501, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 501 of the pVP2 protein of IBDV.

4. (currently amended) A method process according to ~~any of claim[[s]] 1 to 3~~, wherein said yeast is of the *Saccharomyces* genus or the *Pichia* genus.

5. (currently amended) A method process according to claim 4, wherein said yeast is *S. cerevisiae*, *S. pombe* or *P. pastoris*.

6. (currently amended) An expression system useful for transforming yeasts, comprising the nucleotide sequence encoding ~~for~~ a pVP2\* protein of IBDV operatively bound to a transcription, and optionally translation, control element[[s]], wherein said pVP2\* protein ~~is a protein the~~ comprises an amino acid sequence of ~~which consists of the amino acid sequence comprised~~ between residue 1 and residue "n" of the pVP2 protein of IBDV, wherein "n" is an integer comprised between 441 and 501.

7. (original) A yeast comprising an expression system according to claim 6.

8. (currently amended) The A yeast according to claim 7, wherein the yeast is transformed with the[[an]] expression system comprising the nucleotide sequence encoding the pVP2\* protein operatively bound to the transcription control element according to claim 6.

9. (currently amended) A yeast according to ~~any of claim[[s]] 7 or 8~~, wherein said yeast is of the *Saccharomyces* genus.

10. (currently amended) A yeast according to claim 9, wherein said yeast is *S. cerevisiae* or *S. pombe*.

11. (Canceled)

12. (currently amended) An empty capsid of the infectious bursal disease virus (IBDV) [VLP-pVP2\*] obtained according to the process of ~~any of claims 1 to 5~~.

13. An empty capsid of the infectious bursal disease virus (IBDV) [VLP-pVP2\*], wherein the empty capsid characterized in that it is formed by assembly of pVP2\* proteins of IBDV expressed in yeasts, wherein said pVP2\* protein of IBDV is a protein the comprises an amino acid sequence of ~~which consists of the amino acid sequence comprised~~ between residue 1 and residue "n" of the pVP2 protein of IBDV, wherein "n" is an integer ~~comprised~~ between 441 and 501.

14. (currently amended) A capsid according to ~~any of claims 12 or~~ 13, wherein said pVP2\* protein of IBDV is selected from the group formed by:

- (i) the pVP2 protein-441, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 441 of the pVP2 protein of IBDV;
- (ii) the pVP2 protein-452, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 452 of the pVP2 protein of IBDV;
- (iii) the pVP2-456 protein, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 456 of the pVP2 protein of IBDV;
- (iv) the pVP2 protein-466, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 466 of the pVP2 protein of IBDV;
- (v) the pVP2 protein-476, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 476 of the pVP2 protein of IBDV;
- (vi) the pVP2 protein-487, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 487 of the pVP2 protein of IBDV;
- (vii) the pVP2 protein-494, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 494 of the pVP2 protein of IBDV; and
- (viii) the pVP2 protein-501, the amino acid sequence of which consists of the amino acid sequence comprised between residue 1 and residue 501 of the pVP2 protein of IBDV.

15. (currently amended) The A-capsid according to any of claims 12 to 14 claim 13, characterized in that it has isometry  $T=1$ .

16. (currently amended) A pharmaceutical composition comprising the ~~The use of empty~~ capsid[[s]] of the infectious bursal disease virus (IBDV) [VLPs-pVP2\*], ~~according to any of claims 12 to 15, in preparing a medicinal product according to claim 13.~~

17. (currently amended) The pharmaceutical composition ~~use~~ according to claim 16, wherein said pharmaceutical composition medicinal product is a vaccine or a gene therapy vector against the avian disease referred to as infectious bursitis, ~~or a gene therapy vector~~.

18. (currently amended) A vaccine comprising a therapeutically effective amount of the empty capsids according to claim 13 ~~of the infectious bursal disease virus (IBDV) [VLPs pVP2\*]~~, ~~according to any of claims 12 to 15, optionally with and~~ one or more pharmaceutically acceptable adjuvants and/or carriers.

19. (currently amended) A vaccine according to claim 18, wherein the vaccine is capable of ~~for~~ protecting birds from the infectious bursal disease virus (IBDV).

20. (currently amended) A vaccine according to claim 19, wherein said birds are selected from the group consisting of ~~formed by~~ chickens, turkeys, geese, gander, pheasants, quails and ostriches.

21. (Canceled)

22. (new) The method of claim 1, further comprising isolating said pVP2\* protein.

23. (new) The method of claim 2, further comprising isolating said VLPs-pVP2\* of IBDV.